

Instructional Space Project Request

2013-15 Biennium

<u>Agency</u>	<u>Institution</u>	<u>Building No.</u>	<u>Building Name</u>
University of Wisconsin	Parkside	285-0G-3017	Greenquist Hall

<u>Location ID</u>	362/364
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<u>Project Title</u>	Greenquist Chemistry Laboratory 362/364
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Project Intent

The intent of this project is to remodel two existing Chemistry instructional labs into a single state of the art instructional lab to address infrastructure deficiencies, configuration deficiencies and safety concerns, and to increase student recruitment and retention. Outcomes from this project will inform the future design of a remodeling or new construction project addressing science lab deficiencies throughout Greenquist Hall.

Project Description

The proposed project is a remodel of Greenquist Hall rooms 362 and 364 to provide a single, state of the art Chemistry instructional lab. This project will serve as a pilot for future science lab construction on the campus, address issues that undermine successful teaching in the space, upgrade the facility to current teaching best practices, and improve the efficiency of the electrical and HVAC systems that serve the space. The room will accommodate instructional and preparation space for organic chemistry on one end and inorganic chemistry on the other. The far ends of the lab contain preparation rooms with fume hoods, balance rooms and instrumentation areas, while the central area is reserved for flexible, collaborative, active learning "pods" supporting current pedagogical practices. The central area is designed to provide a flexible space that can accommodate a variety of disciplines, can be adapted to address evolving pedagogical needs, and support collaboration across disciplines. HVAC control will be improved by creating a mechanical zone in this space allowing for tighter temperature and humidity controls. This will allow for consolidation of the department's most sensitive instrumentation which is currently scattered throughout the building. By co-locating the equipment in one place, there will be increased efficiencies for maintaining the equipment and it will provide a better learning environment for students.

Project Justification

The existing analytical chemistry and chemical instrumentation space located in Greenquist 362 and 364 is outdated, has inadequate utilities and infrastructure to support modern instrumentation, contains broken and damaged cabinetry and bench tops, and is poorly configured in several respects. Further, the space is not conducive to collaborative work which is now central to UW-Parkside's science curriculum. The need to support changed pedagogy, increase student engagement and retention, and provide support for interdisciplinary utilization, has led to UW-Parkside's request for support for a renovation project designed to have a 10 year or greater life span, which will retain current students, attract new students, and support future growth in the science curriculum. In view of the likelihood that UW-Parkside will have a significant waiting period before the campus would be considered for a new science building, this project is being proposed at a logical juncture in the time line for continued renovation and improvement of the university's science facilities. Further, the space proposed combines two separate spaces into one, open space designed to improve student perceptions of the space, support learning, and utilize the space more efficiently. This proposal is also in alignment with UW-Parkside's Academic Plan, program priorities and strategic plan.

In the event that UW-Parkside is approved for a new science facility adjacent to the current science facilities, this laboratory can continue to be utilized and as needed, be altered to support future usage for both wet and dry lab environments.

According to Mark Yakren, "colleges and universities...must be vigilant about upgrading or replacing aging infrastructure, and finding ways to attract top faculty and students. To satisfy all these demands, higher-education institutions are constructing state-of-the-art science facilities" (p. 151, 2007, *American School & University*). As Yakren emphasizes in his article, re-modeling or building new science spaces is an imperative to support appropriate pedagogical approaches in the sciences which have moved from individual work to a collaborative approach and which are undermined by the design of

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older science facilities. Further, the design of science facilities impacts student engagement and retention. According to Van Wylen and Walczak (2011), "given that the overall environment for student learning is enhanced in our highly connected teaching laboratory design, we recommend this as a useful strategy for those considering new or renovated science facilities." (p. 52). Van Wylen and Walczak observed that more interconnected laboratory spaces had a direct impact on student interest in the sciences, and engagement and retention in science courses. In addition, through the remodeling process, campuses are working to ensure better energy efficiency, reliable power, reduce lighting costs, and achieve greater sustainability within these facilities. Through attention to pedagogical needs, and through improved sustainability for the infrastructure, universities want to ensure they have a 10 to 20 year life span.

Project Budget

Construction Cost:		\$
A/E Design Fees:	8.00%	\$
AV consultant Fees:		\$
DFD Mgmt Fees:	4.00%	\$
Contingency:	15.00%	\$
Movable Equipment:	9.00%	\$
AV Equipment:		\$
TOTAL:		\$ 1,289,000

Funding Source

General Fund Supported Borrowing	\$
Institutional Funds (GPR)	\$
Institutional Funds (PR)	\$
Gifts	\$
Grants	\$
Other	\$
TOTAL:	\$

Flooring and Furniture

	<u>Tiered</u>	<u>FS</u>	<u>FT</u>	<u>MT</u>	<u>TC</u>
Existing Conditions:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proposed Conditions:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Tiered = tiered flooring

FS = Fixed Seating

FT = Fixed Tables

MT = Movable Tables

TC = Tablet Arm Chairs

Seating and Space

	<u>Existing</u>	<u>Proposed</u>
Square Feet:	2,877 ASF	2,877 ASF
Seating Capacity:	24 Stations	24 Stations
Square Feet per Station:	120 ASF/Station	120 ASF/Station

Technology

	<u>Existing</u>	<u>Proposed</u>
Technology Level:	Level 0	Level AL

1 = Level 1
2 = Level 2
3 = Level 3
3+ = Level 3+
AL = Active Learning
DL = Distance Learning

Audio-Visual Consultant Requirements

☐ An audio-visual consultant is required.

Project Schedule

Bid Opening: 03/2015
Construction Start: 06/2015
Substantial Completion: 12/2015

Project Contact

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Project Considerations

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1. Are hazardous materials involved? If yes, what materials are involved and how will they be handled? ☒ ☐

Required hazardous materials abatement has been included in the estimated project schedule and project budget. Comprehensive environmental survey inventory data is available on Wisconsin's Asbestos & Lead Management System (WALMS) <<http://walms.doa.state.wi.us/>>.

2. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent? ☐ ☒

3. Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building, and/or within the building? If yes, to what extent? ☐ ☒

4. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed resolution. ☒ ☐

A summer-only construction window is insufficient time to complete this project so the construction schedule also utilizes the fall term. The Chemistry Department has indicated that they will be able to relocate courses as necessary to take Greenquist 362 and 364 off-line for the fall 2015 term.